

SYSTEM AND METHOD FOR ENABLING A FULL FLOW CONTROL DOWN TO THE SUB-PORTS OF A SWITCH FABRIC

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ABSTRACT OF THE DISCLOSURE

The invention permits an effective traffic flow control, down to all sub-ports, of a switch made of a N-port core switch fabric. Sub-ports concentrate traffic from lower speed lines to a switch fabric native port. In each sub-port adapter, when congestion is detected in the OUT leg, it is reported through the corresponding IN leg. Congestion is piggybacked over the incoming traffic entering the input port of the N-port core switching fabric and is broadcast so that all sub-ports become aware of the detected congestion in any of the sub-ports. Each sub-port adapter performs a checking of the congestion status of all the other sub-ports and acts to stop forwarding received traffic destined for congested sub-ports and holds further received traffic until the sub-ports are reported to be no longer congested. The full intrinsic performance of a N-port switch fabric is realized by concentrating, through port and sub-port adapters, the traffic of more than N independent lines.